



# ADAPTATION OF AUSTRALIAN QUALIFICATIONS IN BUILDING AND CONSTRUCTION FOR DELIVERY WITHIN THE EUROPEAN QUALIFICATION FRAMEWORK

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## ABSTRACT

This paper considers the prospect and feasibility of adapting Australian Nationally Recognised Qualifications in Building and Construction to National Vocational Qualifications within the European Qualifications Framework. The prospect is considered from the perspective of similarity between the two systems, particularly at a Vocational Education and Training level, and considers the need and benefit based on selected demand and noted forecast skills shortages. Based on the reviews of the systems, Australian qualifications are well placed for adaptation and integration into training systems in countries utilising National Vocational Qualifications aligned with the European Qualifications Framework.

**KEYWORDS:** Australian Qualification Framework, European Qualifications Framework, National Vocational Qualifications, Vocational Education and Training.

## INTRODUCTION:

European Union (2016, p1) recognises that “international comparability of qualifications is important in Australia and Europe, and is articulated through the objectives and policies of both qualifications frameworks”. Any recognition effectively supports the mobility of learners and workers and likewise provides for an increased range of training options for learners, within and between countries.

The Australian Qualifications Framework (AQF) is well established and training providers within the system have well evolved training systems and practices to meet the specifications of the regulatory requirements in place. Systems utilised by training providers operating within the AQF may have a high degree of portability in implementation in countries that have systems based on the European Qualifications Framework (EQF) due to identified similarities in the systems.

Where skills shortages and training gaps exist in European Union countries, there may be an opportunity for additional training providers to enter the training market.

## METHOD:

This study is based on searches and interpretation of relevant legislation and regulations, regulatory body publications and a range of literature to provide a comparison of the training systems implemented against the Australian Qualifications Framework to those against the European Qualification Framework. A qualitative research approach is utilised to understand perceptions of the social realities of the structure and function of the systems and the potential interactions within them. On this basis, an interpretive methodology has been applied in that observation through critical review utilising content analysis, as described by Elo and Kyngäs (2007), is used to draw conclusions. This approach was taken as the aim of the study is to attain a condensed and broad description of the concept. Further, the purpose of the study is to provide knowledge, new insights, a representation of facts and a practical guide to action as advocated by Krippendorff (1980).

## DISCUSSION:

### Comparison of Australian Qualifications Framework and the European Qualifications Framework:

A comparative analysis of the Australian Qualifications Framework (AQF) and the European Qualifications Framework (EQF) was conducted by European Union (2016) and identified the comparability, similarities and differences between the two frameworks. The EQF was established in 2008 as a regional common reference framework for EU member states with the purpose of improving the transparency, comparability and portability of qualifications in Europe. The EQF is a regional framework that do not contain qualifications. European National Qualification Frameworks (NQFs) encompass qualifications types and are referenced to the EQF. The AQF was instituted in 1995 as the national policy for regulated qualifications to improve national consistency in Australian education and training and enhance the recognition and portability of Australian qualifications (European Union, 2016). Within the European Union (EU), member states are responsible for their education and training systems and through EU treaties, member states have assigned certain powers to the EU. Within the EQF, qualifications are not directly allocated to EQF levels, rather they are linked to EQF levels via the referencing of national qualifications levels to the EQF levels. As such, its purpose is to make qualifications more readable and understandable across countries and systems (European Centre for the Development of Vocational Training, 2020a).

Countries participating in the EQF, as outlined by European Centre for the Development of Vocational Training, include Austria, Belgium (Flanders and Wallonia), Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, the Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Kosovo, Latvia, Lichtenstein, Lithuania, Luxembourg, Malta, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Sweden, Switzerland, Turkey and the United Kingdom (England, Scotland and Wales).

Within the EU system, NQFs classify qualifications by level, based on learning outcomes outlining what the holder of a certificate or diploma is expected to know, understand, and be able to do European Centre for the Development of Vocational Training (2020b). The learning outcomes approach also ensures that education and training sub-systems are open to one another and allows people to move more easily between education and training institutions and sectors.

The AQF puts senior secondary school, vocational education and training (VET) and higher education qualifications into a single, national framework and consists of learning outcomes, specifications for authorities that accredit, develop and issue each qualification type, a range of policies and explanations that help interpret the way the AQF should be implemented (Australian Qualifications Framework Review Panel, 2018). Learning outcomes are specified in terms of knowledge, skills, and the application of knowledge and skills for each AQF level and a volume of learning for each AQF qualification type.

An alignment between the AQF and EQF qualification levels has been completed by the European Union (2016). They summarise the alignment of qualification levels as follows:

- AQF Certificate I aligned to EQF Primary education certificates and Basic VET qualifications
- AQF Certificate II aligned to EQF Lower-secondary education and Basic VET qualifications
- AQF Certificate III aligned to EQF Secondary education certificates and VET qualifications
- AQF Certificate IV aligned to EQF Upper secondary general education certificates and VET qualifications
- AQF Diploma and Advanced Diploma aligned to EQF SCHE qualifications and Higher professional qualifications
- AQF Bachelor Degree, Bachelor Honours Degree, Graduate Certificate and Graduate Diploma aligned to EQF First cycle degrees (Bachelor), IE: Honours Bachelor Degree and Higher professional qualifications, DE: 'Master Craftsman (certified)'
- AQF Masters Degree aligned to EQF Second cycle degrees (Master) and Higher professional qualifications, CZ: 'Chemical engineer product 'manager'
- AQF Doctoral Degree aligned to EQF Third cycle degrees (Doctorate) and Higher professional qualifications, EE: occ. qual. 'chartered engineer'

The Australian Qualifications Framework Review Panel (2018) notes that some countries have qualifications frameworks that include shorter form credentials, including the Danish, Scottish, and Irish systems where they group together shorter form credentials according to their purpose. The AQF does not currently include this provision.

This alignment may be used broadly for mapping qualifications defined within Australia's national vocational education and training sector by Australian training providers. Particularly where training providers are aiming to deliver in EQF countries and are planning to adapt their AQF based qualifications for delivery locally in the EU country. Given that all European countries participating in the EQF have their own education system (European Commission, 2017), mapping essentially would need to occur in the country of interest.

**National Vocational Qualifications and Scottish Vocational Qualifications:** NVQs are based on national occupational standards which are statements of performance that describe what competent people in a particular occupation are expected to be able to do (City and Guilds, 2020a). NVQs do not have to be completed in a specified amount of time and can be undertaken by full-time employees or by school and college students with a work placement or part-time job that enables them to develop the appropriate skills. There are no age limits and no special entry requirements to commence studies in these qualifications. Scottish Vocational Qualifications (SVQs) operate broadly in the same way as NVQs but are used mostly in Scotland. City and Guilds (2020a) further outline that progression awards, certificates, diplomas and other vocational awards are designed for people who cannot participate in NVQs, given that they are only available to those who are currently employed.

As an example of these programs, City and Guilds offers International Vocational Qualifications (IVQs) that are designed to measure the knowledge and practical skills of learners and in particular designed for the international marketplace. There are two types of IVQ, namely Craft and Technician, which are available at three levels: Certificate; Diploma; and Advanced Diploma.

PKPA (2018) identify that in some countries, National Qualification Frameworks have their own legislation where in others they come under regulations in the educational or workforce legislation or are established within Ministries. They also note that, in some countries, the Agency responsible for maintaining and administering the framework is also the qualifications and/or quality assurance agency. Other countries provide a framework that is simply an information and support tool and has no regulatory role.

In the United Kingdom, there are many separate qualifications available for use in both general and vocational learning outside of higher education. The qualifications, like those within the Australian VET system, are designed to give a reliable indication of an individual's knowledge, skills or understanding and are only awarded to those who have demonstrated a specified level of attainment (European Commission, 2019). Within the system, qualifications are provided by awarding organisations (AOs), which are external to the education or training provider. AOs are private companies, with either commercial or charitable status,

funded mainly by examination fees. Example AOs include Pearson Education Ltd, Qualsafe Awards, The Learning Machine, City and Guilds of London Institute and British Safety Council. They develop and deliver qualifications to meet government policy requirements and changing skills requirements and to respond to market demand. European Commission (2019) notes that the majority of the 158 awarding organisations across the UK delivering regulated qualifications provide vocational qualifications.

The Regulated Qualifications Framework (RQF) was developed in the UK in 2015, replacing the NQF and Qualifications and Credit Framework (QCF). The RQF is similar to the NQF and QCF, in that qualifications are still assigned 'levels' according to their difficulty. The RQF, however, does not require qualifications to be combinations of units which are assigned credit. Awarding organisations can now choose whether or not it is necessary to break their qualifications up into units, and whether these units should bear credit (European Commission, 2019).

Training organisations wanting to deliver within this framework should work with AOs to deliver qualifications registered on the Register of Regulated Qualifications. The Register also includes qualifications regulated by the qualifications regulator in Northern Ireland.

#### Volume of Learning Comparison:

The European Credit Transfer and Accumulation System (ECTS) is a credit system designed to make it easier for students to move between different countries and is based on the learning achievements and workload of a course (PKPA, 2018). A credit point approach is also taken in other countries outside Europe who have referenced their frameworks to regional frameworks that are referenced to the EU framework. In the ECTS, sixty credits are allocated to the learning outcomes and associated workload of a full-time academic year or its equivalent. PKPA (2018) outline that the full-time workload of an academic year is often formalised by national legal provisions but in most cases in Europe ranges from 1500 to 1800 hours which means that one credit corresponds to 25-30 hours of work for the typical student. Comparatively, in New Zealand and Australia 1 credit equates with 10 hours of total learning effort and the notional workload of an academic year is 1200 hours. This comparison gives training providers a volume of learning benchmark when comparing an Australian qualification to one within the EQF.

#### A Practical Example – Bricklaying:

By means of an example of alignment, a trade level qualification may be considered. For this purpose, a comparison is made between a bricklaying course program as derived from the CPC Construction, Plumbing and Services Training Package as delivered in Australia against an Awarding Organisation's qualification requirements based on the RQF in the UK.

Table 1 outlines a comparison between the Level 2 Extended Diploma in Bricklaying (6705-50) (City and Guilds, 2020b) and the CPC30111 Certificate III in Bricklaying/Blocklaying (Department of Employment, Skills, Small and Family Business, 2020).

**Table 1: Comparison and example alignment of a Bricklaying qualification as defined by City and Guilds (2020b) available for delivery in England, Wales, Northern Ireland and as an International Vocational Qualification against a Nationally Recognised Australian qualification.**

	EQF - City and Guilds specified Qualification	AQF - Nationally Recognised Qualification
Qualification Title	Level 2 Extended Diploma in Bricklaying (6705-50)	CPC30111 - Certificate III in Bricklaying/Blocklaying
Description	<p>It allows candidates to learn, develop and practise the skills required for employment and/or career progression in Bricklaying.</p> <p>It covers the following skills:</p> <ul style="list-style-type: none"> <li>• Interpreting working drawings to set out masonry structures</li> <li>• Producing thin joint masonry and masonry cladding</li> <li>• Building solid walling, isolated and attached piers</li> <li>• Construct cavity walling forming masonry structures</li> </ul>	<p>This qualification provides a trade outcome in bricklaying and blocklaying. Occupational titles may include:</p> <ul style="list-style-type: none"> <li>• Bricklayer</li> <li>• Blocklayer</li> </ul> <p>The qualification has core unit of competency requirements that cover common skills for the construction industry, as well as two specialist fields of work.</p>
Qualification Hours	Guided Learning Hours: 760 – 760 Total Qualification Time: 830	1200 – 2400 hours based on Australian Qualifications Framework volume of learning
Qualification Unit Requirements and example alignment	<p>Unit 101/501 Principles of building construction, information</p> <p>Unit 102 Contribute to setting out and building of masonry structures up to damp proof course</p>	<p>CPCCCM1015A Carry out measurements and calculations</p> <p>CPCCCA3002A Carry out setting out</p> <p>CPCCCM2006B Apply basic levelling procedures</p> <p>CPCCCM2009A Carry out basic demolition</p> <p>CPCCBL3009A Install flashings and damp proof course</p> <p>CPCCCO2013A Carry out concreting to simple forms</p> <p>CPCCSF2004A Place and fix reinforcement materials</p>

Qualification Unit Requirements and example alignment	Unit 103 Carrying out blocklaying activities	CPCCCM1012A Work effectively and sustainably in the construction industry CPCCBL2001A Handle and prepare bricklaying and blocklaying materials CPCCBL2002A Use bricklaying and blocklaying tools and equipment
	Unit 104 Carrying out bricklaying activities	CPCCCM1012A Work effectively and sustainably in the construction industry CPCCBL2001A Handle and prepare bricklaying and blocklaying materials CPCCBL2002A Use bricklaying and blocklaying tools and equipment CPCCBL3004A Construct masonry steps and stairs CPCCBL3015A Construct decorative brickwork CPCCBL3016A Construct battered masonry walls and piers CPCCBL3017A Carry out tuck pointing to brickwork
	Unit 105 Carrying out cavity walling activities	CPCCBL3003A Carry out cavity brick construction
	Unit 201/601 Health, safety and welfare in construction	CPCCOHS2001A Apply OHS requirements, policies and procedures in the construction industry CPCCCM2008B Erect and dismantle restricted height scaffolding CPCCCM2010B Work safely at heights
	Unit 202/602 Principles of Building construction, information and communication	CPCCCM1013A Plan and organise work CPCCCM1014A Conduct workplace communication
	Unit 204 Building solid walling, isolated and attached piers	CPCCBL3002A Carry out masonry veneer construction CPCCBL3006A Lay multi-thickness walls and piers CPCCBL3010A Construct masonry arches CPCCBL3014A Install fire-rated masonry construction
	Unit 205 Interpreting working drawings to set out masonry structures	CPCCCM2001A Read and interpret plans and specifications
	Unit 206 Construct cavity walling forming masonry Structures	CPCCBL3005A Lay masonry walls and corners CPCCBL3011A Construct curved walls

The degree of overlap between the two systems is demonstrated through the basic alignment exercise as shown in Table 1, and on the basis of the close relationship that exists, Australian training providers who are currently delivering the recognised qualification have robust systems in place that can readily be adapted to the NVQ derived qualifications. This approach supports to the European Union (2016) notion of comparability of qualifications and the potential benefits of such alignments, including opportunities for increased mobility.

#### **Construction Industry Skills Requirements and Shortages:**

McNaboe et al. (2019) identify that construction employment, particularly in the commercial sector, has grown strongly in recent years in Ireland. They further note that the government's Climate Action Plan will increase demand for some occupations such as carpenters, due to plans for significant retrofitting of homes, and future skills demand may be driven by increased activity resulting from implementation of the plan and increased residential and commercial activity. On this basis, McNaboe et al. (2019) pinpoint a number of skills shortages, including civil engineers, construction project managers, quantity surveyors, carpenters, glaziers, steel erectors/fixers, curtain wallers, scaffolders and pipe layers. Morris (2020) concurs, noting that the Climate Action Plan combined with Project Ireland 2040, along with other factors, will continue to lead a high demand across the construction sector. Morris (2020) further notes that emigration has contributed to a skills shortage from top-level to junior graduate level. Given the noted skills shortages, current and projected, there are opportunities for training providers to establish and commence training for new entrants into the industry and to upskill existing workers. Upskilling will be required across the areas of technology and green technology with a focus on sustainability along with health and safety (Morris, 2020).

Scully (2020) notes that skills shortages form the major challenge in the Irish construction industry and that the industry is addressing these shortages by employing greater numbers of apprentices and by recruiting more people from abroad, both returning emigrants and new immigrants. In this regard, qualification alignment is an important factor for returning emigrants and new immigrants, given their qualifications may have been obtained in another country. The move to employing greater numbers of apprentices also provides for a training opportunity for new providers.

In the UK, as outlined by Riordan and Taggart (2020), labour shortages exist in key trades across the construction industry which are forecast to persist beyond 2020. They suggest that workforce numbers are expected to remain relatively stagnant, or even decrease due to an ageing workforce and a lower total net migration between the EU and UK, which will increase pressure on a labour pool that is already stretched. They further suggest that the UK Government is currently seeking to reduce the immigration of unskilled labourers and that these

workers account for the majority of the construction workforce. As such, a skilling and upskilling opportunity with recognised qualification exists with the UK preference to favouring skills-based workers. Industry engagement between training providers and the construction industry to encourage new and young entrants to the workforce would be of particular benefit, especially given the aging workforce. Collaborative arrangements such as these ensure relevant training is delivered and to the quality required of the industry. Industry consultation is built into the Australian Vocational Education and Training system and training providers are well versed in undertaking industry consultation, particularly for validation of training products. These skills can be carried over and utilised within NVQ programs to enhance the delivery, and subsequently the outcomes, of the training.

#### **CONCLUSION:**

There are opportunities for training providers operating in Australia under the Australian Qualifications Framework for delivery of qualifications in countries that have adapted the European Qualifications Framework based on noted alignment between qualification levels. AQF qualifications, given their vocational and competency-based nature can be aligned with some adaptation to National Vocational Qualifications. Although the countries associated with the EQF have consistency in qualification levels, there are variations within the NVQ system and on this basis, any alignment needs to be completed on a country by country basis. Where a training provider has a well-developed training approach inclusive of training strategies and training and assessment materials, the approach could be customised to allow for local requirements. Given the current building and construction skills shortages in some EU countries, an opportunity exists for additional training providers that may assist in the development of the workforce, whether through training new entrants or through re-skilling or upskilling.

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